

SECRET

SAPC 12351
COPY / OF 2

SUBJECT: TEST OF REARWARD MOUNTED DRIFT SIGHT

1. PURPOSE:

To provide rearward visibility for sighting of other aircraft and to ascertain if "Contrails" are forming.

2. RESULTS:

a. Within the limitations depicted in attachments and outlined in paragraph "b" below, the rearward visibility is excellent and will definitely reveal the presence of another aircraft approaching for a conventional gunnery attack. It is assumed the attack will come from the lower rearward quarter of the aircraft.

b. Due to the slight curvature of the belly of the aircraft and the location of the lens housing, sight is restricted directly rearward slightly below (approximately 20°) horizontal within 2½° either side of the longitudinal axis of the aircraft; however, on all other axis (except the above mentioned 50° directly rearward) the scope will sight aircraft to 7½° above the horizontal plane of the lens housing.

c. Due to the above, it is impossible to ascertain if "Contrails" are being formed by the aircraft. This was thoroughly tested using different aircraft attitudes, turns, and porposing all with negative results.

d. By use of this installation other aircraft of fighter size can be sighted as far out as six (6) miles.

e. The one (1) mile square, scribed on the scope face can be used for ruff ranging of approaching aircraft. A T-33's wing span fills this square at a range of approximately three hundred (300) feet.

3. CONCLUSIONS:

a. A rearward looking drift sight will be invaluable in detecting aircraft approaching from the rear.

b. This installation is not suitable for detecting "Contrails".

4. RECOMMENDATIONS:

a. A drift sight be developed that will give the conventional forward presentation as well as this rearward presentation by pilot selection.

b. The forward presentation of the scope not be jeopardized by this installation.

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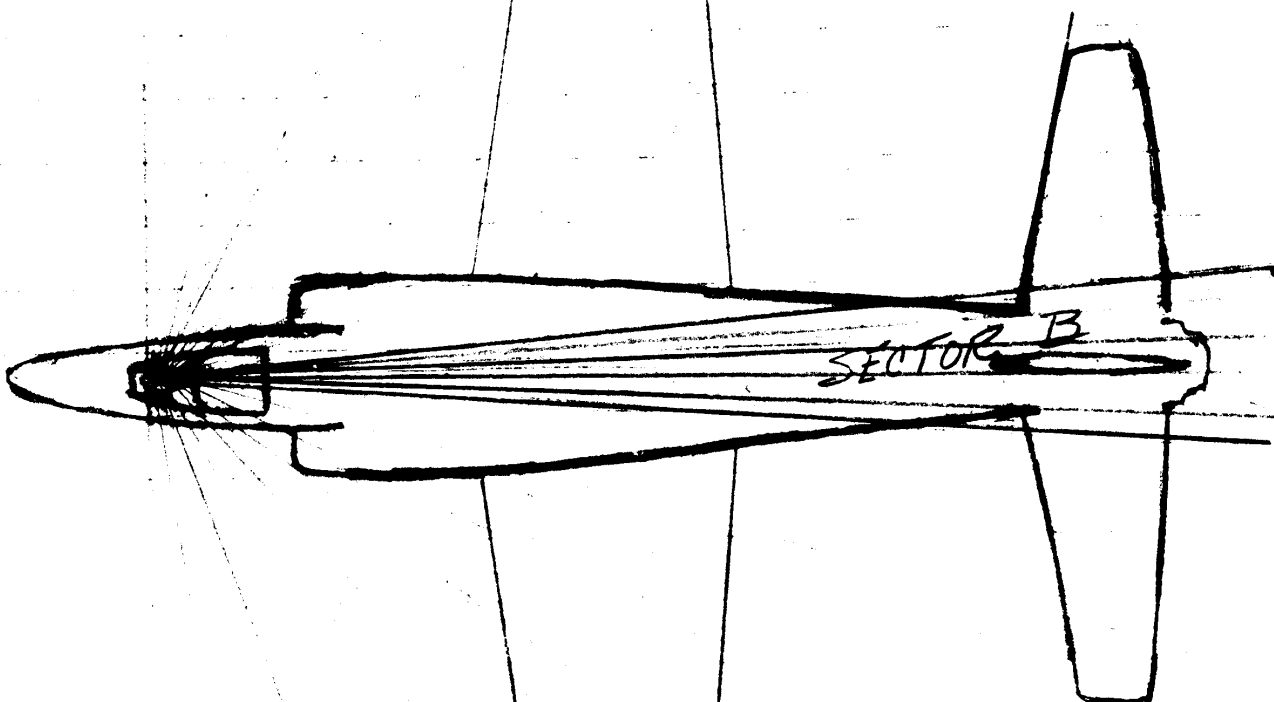
c. A mirror be mounted on the inboard side of the wing tip skids to reveal if "Contrails" are being formed. At present this installation of mirrors is being made and more information will be forthcoming after flight test.

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ATTACHMENT #1

SECTOR C



SECTOR A

SECRET

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